



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D3076-1

Job Sheet 181310



Part No: D3076-1

Job Qty: 4 ea

Part Name: R22 Bearpaw



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 7/25/18

Job Tracking No:

Due Date: 8/13/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV A1 IPP Rev:C 04.02.19 Added tolerance and ref to DSK086-12 to Step 3 KJ/JLM IPP Rev:D 08-11-10 New Manufacturing Method JLM Verified By:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea	8/13/18	8/13/18	0.00	0.00	Start Up Waterjet		SC 8/10/2018
110	Waterjet	4 pcs	8/13/18	8/13/18	0.00	0.77	Waterjet1		DK 8/10/2018
120	CNC Vertical Machining	4 pcs	8/13/18	8/13/18	0.00	3.29	HAAS1-3		52 18/08/15
130	QC	4 pcs	8/13/18	8/13/18	0.00	0.00	QC2 Machining-1		9-89 18/08/15
140	QC	4 pcs	8/13/18	8/13/18	0.00	0.00	QC8 Machining-1		DA 18-08-15
150	Packaging	4 pcs	8/13/18	8/13/18	0.00	0.00	Packaging3		AUG 15 2018
160	QC21-SA	4 Ea	8/13/18	8/13/18	0.00	0.00	QC21		21 AUG 15 2018

Part Op 110 - Cut Blank as per file D3076-1_BLANK

Descriptions: 120 - Note: (2) Bearpaw for (1) Kit 1-Inspect material for defects or damage prior to machining 2-Machine as per Folio FA186 and Dwg D3076 3-Identify as D3076-1 4-Deburr

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MUHMWB10	UHMW 1" Black - 48"x120" Tivar Mfg.#52480104	4 sf (1 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MUHMWB10	4	1,173	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	R22 Bearpaw	0.070Inches + 0.030 - 0.010	0.100 0.060	0.07	
2	R22 Bearpaw	45.000Inches ± 0.500	45.500 44.500	45.0	
3	R22 Bearpaw	0.630Inches ± 0.030	0.660 0.600	0.645	
4	R22 Bearpaw	0.250Inches ± 0.010	0.260 0.240	0.256	
5	R22 Bearpaw	0.950Inches + 0.030 - 0.010	0.980 0.940	0.960	

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																																																																													
Date : _____	Step #: _____	LOTY Effective : _____																																																																																																																																													
Description Work Order Deviation Container No: S096791 Part: D3076-1 Job No: 181310 Serial No/Batch: S096791 Revision: _____ Inspector: _____ Exp Date: _____ Instructions: Various STC's Date: 07/28/18																																																																																																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Root Cause</th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td>Environment</td><td>☐</td> <td>No Re-verification</td><td>☐</td> <td>Pressure/Forced</td><td>☐</td> </tr> <tr> <td>Design</td><td>☐</td> <td>Operator</td><td>☐</td> <td>Bending</td><td>☐</td> </tr> <tr> <td>Doc/Data</td><td>☐</td> <td>Offset/Setup</td><td>☐</td> <td>Centre Not Concentric</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> <td>Supplier</td><td>☐</td> <td>Cracks</td><td>☐</td> </tr> <tr> <td>Handling/Pre</td><td>☐</td> <td>Training</td><td>☐</td> <td>Crimp/Kink/Ripple/Wave</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> <td>Use for Testing</td><td>☐</td> <td>Cuffs</td><td>☐</td> </tr> <tr> <td>Internal Transport</td><td>☐</td> <td>Poor Information</td><td>☐</td> <td>Crushing</td><td>☐</td> </tr> <tr> <td>Tribal Knowledge</td><td>☐</td> <td>Rushing</td><td>☐</td> <td>Heat Treat</td><td>☐</td> </tr> <tr> <td>LOA</td><td>☐</td> <td>Product Improvement</td><td>☐</td> <td>Wave/Twist in Tube</td><td>☐</td> </tr> <tr> <td>Substation</td><td>☐</td> <td>Process Improvement</td><td>☐</td> <td>Marks/Chatter</td><td>☐</td> </tr> <tr> <td>Past Expiry Date</td><td>☐</td> <td>Manufacturing Process</td><td>☐</td> <td>Inspection Incomplete/Unqualified</td><td>☐</td> </tr> <tr> <td>Misidentified</td><td>☐</td> <td>Past Due</td><td>☐</td> <td>Contamination</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Countersink</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Cut Too Short</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Instructions Incomplete/Unclear</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Drill Holes</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Wrong Stock Pulled</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Out of Sequence</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Off-set</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Mislabeled</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Fit/Function</td><td>☐</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>Misaligned/off center</td><td>☐</td> </tr> </table>						Root Cause						Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Design	☐	Operator	☐	Bending	☐	Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	Equip/Tooling	☐	Supplier	☐	Cracks	☐	Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Material	☐	Use for Testing	☐	Cuffs	☐	Internal Transport	☐	Poor Information	☐	Crushing	☐	Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Past Expiry Date	☐	Manufacturing Process	☐	Inspection Incomplete/Unqualified	☐	Misidentified	☐	Past Due	☐	Contamination	☐					Countersink	☐					Cut Too Short	☐					Instructions Incomplete/Unclear	☐					Drill Holes	☐					Wrong Stock Pulled	☐					Out of Sequence	☐					Off-set	☐					Mislabeled	☐					Fit/Function	☐					Misaligned/off center	☐
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6	R22 Bearpaw	5.500Inches ± 0.030	5.530 5.470	5.5
7	R22 Bearpaw	0.250Inches ± 0.030	0.280 0.220	.250
8	R22 Bearpaw	45.000Inches ± 0.500	45.500 44.500	45°
9	R22 Bearpaw	0.375Inches ± 0.010	0.385 0.365	.380
10	R22 Bearpaw	0.475Inches ± 0.010	0.485 0.465	.482
11	R22 Bearpaw	5.830Inches ± 0.030	5.860 5.800	5.830
12	R22 Bearpaw	3.800Inches ± 0.030	3.830 3.770	3.800
13	R22 Bearpaw	3.046Inches ± 0.010	3.056 3.036	3.048
14	R22 Bearpaw	3.638Inches ± 0.010	3.648 3.628	3.64
15	R22 Bearpaw	0.260Inches + 0.005 - 0.000	0.265 0.260	0.260
16	R22 Bearpaw	0.930Inches ± 0.030	0.960 0.900	.931
17	R22 Bearpaw	0.300Inches + 0.030 - 0.000	0.330 0.300	.315
18	R22 Bearpaw	7.000Inches ± 0.010	7.010 6.990	7.000
19	R22 Bearpaw	10.140Inches ± 0.030	10.170 10.110	10.140

Plex 7/25/18 12:49 PM Dart.lajeunesse.marie

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
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